

REMARKS

Reconsideration and allowance of the subject application are respectfully requested.

Claims 3 and 8-11 are pending in the application, with Claim 8 being the only independent claim. Claims 10 and 11 are withdrawn from consideration. Claim 8 is amended herein. Support for the feature that the ink-jet recording medium is used in combination with a laminate member may be found throughout the specification, especially at page 18, line 24 to page 19, line 1. Applicant further notes that the "transparent film layer formed on a substrate as coating" in lines 4-5 of Claim 8 corresponds to the laminate member. Support for the feature that the ink-receiving layer is an outermost surface may be found throughout the specification and examples. Support for the feature that the cross-linking agent is in an uncross-linked state may be found in the specification at least at page 11, line 22 to page 12, line 4. It is respectfully submitted that no new matter has been added by the amendments herein.

Claims 3 and 8-9 were rejected under 35 U.S.C. § 103(a) as allegedly obvious over Tomizawa et al. (U.S. Patent No. 5,985,425) in view of Kobayashi et al. (U.S. Patent No. 6,214,458). Applicant respectfully disagrees with this rejection as applied to the present claims.

Before addressing the merits of the rejection, Applicant believes it will be helpful to review some features of the present invention. The present invention, as recited in Claim 8, relates to an ink-jet recording medium that is used in combination with a laminate member. The recording medium comprises a base sheet and an ink-receiving layer on the base sheet. The ink-receiving layer is an outermost surface of the recording medium. The recording medium is used in an ink-jet image-forming method in which a transparent film layer formed on a substrate as coating is placed on the ink-receiving layer on which recording has been conducted, and then the side of the substrate is heated to transfer the transparent film layer on the ink-receiving layer. This is followed by peeling off the substrate to laminate the transparent film layer on the surface of the ink-receiving layer. The ink-receiving layer contains polyvinyl alcohol, porous inorganic

silica particles having an average particle diameter between 5 μ m and 7 μ m, and an epoxy compound as a cross-linking agent. The epoxy compound is in the ink-receiving layer in an uncross-linked state. The content of the polyvinyl alcohol in the ink-receiving layer is not lower than 30 weight %. The content of porous inorganic silica particles in the ink-receiving layer is 100 to 300 parts by weight based on 100 parts by weight of polyvinyl alcohol. The content of the epoxy compound is such that 1 to 10 equivalents of epoxy ring is contained based on 100 equivalents of OH group of the polyvinyl alcohol. In Applicant's view, the cited references do not teach or suggest the claimed invention.

In Tomizawa, et al., the ink-receiving layer is not the outermost surface. An overcoating layer comprising a dot profile controlling agent is further provided on the ink-receiving layer. (See the Abstract.) Accordingly, Tomizawa, et al. does not teach or suggest this feature of Claim 8.

Tomizawa, et al. mentions that for improving water resistance of a water-soluble resin contained in the ink-receiving layer, a cross-linking agent is added to the water-soluble resin. (See col. 4, lines 32-35.) In Applicant's view, the water-soluble resin present in the ink-receiving layer is therefore in a cross-linked state due to the cross-linking agent.

One problem solved by the present invention is that when an ink-receiving layer that is present as the outermost surface contains a large amount of porous inorganic particles, peeling off of the ink-receiving layer typically occurs when peeling off the substrate of the laminate member after transferring the laminate member onto the printed ink-receiving layer. In contrast, in the present invention, polyvinyl alcohol is cross-linked when transferring the laminate member. In the claimed ink-jet recording medium, the cross-linking agent is present in the ink-receiving layer in an uncross-linked state, and the cross-linking reaction is made to occur during the stage of transferring the laminate member onto a printed product obtained by forming an image on the ink-jet recording medium. (See page 11, line 22 to page 12, line 4 of the specification.)


In Kobayashi, et al., as in Tomizawa, et al., a water-soluble resin is cross-linked by a cross-linking agent for improving the water-resistance of the water-soluble resin contained in an ink-receiving layer (column 5, lines 33-35). Therefore, Applicant concludes that the cross-linking agent is present in the ink-receiving layer in a cross-linked state.

Applicant further notes that the ink-jet recording sheet or film of Tomizawa, et al. or Kobayashi, et al. is not an ink-jet recording medium that is used in combination with a laminate member, as recited in Claim 8. In the present invention, water-resistance is not required, since a laminate member is laminated to a printed product after conducting ink-jet recording. In Applicant's view, in Tomizawa, et al. and Kobayashi, et al., water-resistance is required, since lamination treatment is not performed on a printed product.

Applicant concludes that Kobayashi, et al. does not remedy the deficiencies of the Tomizawa, et al. reference. It is submitted that the cited references, whether taken singly or in combination, do not teach or suggest the features of the present invention as recited in independent Claim 8, and that the present invention is patentably defined by independent Claim 8. The dependent claims are allowable for the same reasons as independent Claim 8, as well as for the patentable features recited therein. Individual consideration of the dependent claims, withdrawal of the Section 103 rejection, and rejoinder of withdrawn Claims 10 and 11, are respectfully solicited.

Applicant's undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,


Attorney for Applicant
Jean K. Dudek
Registration No. 30,938

FITZPATRICK, CELLA, HARPER & SCINTO
30 Rockefeller Plaza
New York, New York 10112-3801
Facsimile: (212) 218-2200
JKD/ayr/llp
167387 v 1